

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	191994	(spin adj bulb or ((read\$3 or reproduc\$3) near2 (element\$1 or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tnr\$1 or mram\$1 or magnetic adj2 (memories or memory) or magnetic adj random adj access adj memor\$3 or DSV or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)) or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc.	EPO; JPO; DERWENT	OR	OFF	2006/06/22 14:05
L2	345589	(magnet or magnets or barkhausen or ((hard or vertical\$4 or longitudinal\$4) adj2 bias\$4) or mdc or domain\$ or barkhausen or popcorn or pop adj corn or wiggle or exchange adj tab\$1 or multidomain\$1 or LBS or (sole near3 magnetization\$1) or unidirectional or ((another or other or additional or second) adj2 (anti adj ferromagnet\$\$ or antiferromagnet\$4 or AFM or AFMS)))	EPO; JPO; DERWENT	OR	OFF	2006/06/22 14:07
L3	220444	bias\$3	EPO; JPO; DERWENT	OR	OFF	2006/06/22 12:12
L4	557408	2 or 3	EPO; JPO; DERWENT	OR	OFF	2006/06/22 12:12
L5	13574	1 and 4	EPO; JPO; DERWENT	OR	OFF	2006/06/22 12:12
L6	254803	electromagnet or electro adj magnet or electromagnets or electro adj magnets or solenoid\$4 or ((electromagnet\$2 or electro adj magnet\$2) near3 (bias\$3 or coil\$1))	EPO; JPO; DERWENT	OR	OFF	2006/06/22 14:08
L7	406	5 and 6	EPO; JPO; DERWENT	OR	OFF	2006/06/22 12:15
L8	1	1985-153972.NRAN.	DERWENT	OR	OFF	2006/06/22 13:41

## EAST Search History

L9	1555	(spin adj bulb or ((read\$3 or reproduc\$3) near2 (element\$1 or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 (memories or memory) or magnetic adj random adj access adj memor\$3 or DSV or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)) or g11b005/39.ipc. or g11b005/33.ipc. or g11b005/127.ipc.	IBM_TDB	OR	OFF	2006/06/22 14:05
L10	3237	(magnet or magnets or barkhausen or ((hard or vertical\$4 or longitudinal\$4) adj2 bias\$4) or mdc or domain\$ or barkhaussen or popcorn or pop adj corn or wiggle or exchange adj tab\$1 or multidomain\$1 or LBS or (sole near3 magnetization\$1) or unidirectional or ((another or other or additional or second) adj2 (anti adj ferromagnet\$\$ or antiferromagnet\$4 or AFM or AFMS)))	IBM_TDB	OR	OFF	2006/06/22 14:05
L11	1180	electromagnet or electro adj magnet or electromagnets or electro adj magnets or solenoid\$4 or ((electromagnet\$2 or electro adj magnet\$2) near3 (bias\$3 or coil\$1))	IBM_TDB	OR	OFF	2006/06/22 14:05
L12	8	9 and 10 and 11	IBM_TDB	OR	OFF	2006/06/22 14:06

## EAST Search History

L13	59074	(spin adj bulb or ((read\$3 or reproduc\$3) near2 (element or device\$1)) or mr or DOMR or mre or magneto adj2 (resistiv\$3 or resistance\$1) or magnetoresist\$5 or amr or magnetic\$4 adj2 (resistiv\$3 or resistance\$1) or TuMR\$1 or CMR\$1 or GMR\$1 or spin adj2 valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or tmr\$1 or mram\$1 or magnetic adj2 memor\$3 or magnetic adj random adj access adj memor\$3 or DSV or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)).ti,ab,clm. or "360/113" or 360/313-327.33.ccls. or 338/32\$2.ccls. or 324/207.21.ccls. or 324/252.ccls. or 365/171.ccls. or 365/173.ccls. or 428/811-811.5.ccls. or 148/108.ccls.	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:06
L14	236298	((magnet or magnets or barkhausen or ((hard or vertical\$4 or longitudinal\$4) adj2 bias\$4) or mdc or domain\$ or barkhaussen or popcorn or pop adj corn or wiggle or exchange adj tab\$1 or multidomain\$1 or LBS or (sole near3 magnetization\$1) or unidirectional or ((another or other or additional or second) adj2 (anti adj ferromagnet\$\$ or antiferromagnet\$4 or AFM or AFMS))) or bias).ti,ab,clm.	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:08
L15	59400	(electromagnet or electro adj magnet or electromagnets or electro adj magnets or solenoid\$4 or ((electromagnet\$2 or electro adj magnet\$2) near3 (bias\$3 or coil\$1))).ti,ab,clm.	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:09
L16	349	13 and 14 and 15	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:09
L17	26	(electromagnet or electro adj magnet or electromagnets or electro adj magnets or solenoid\$4 or ((electromagnet\$2 or electro adj magnet\$2) near3 (bias\$3 or coil\$1))) and 360/324.12.ccls.	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:12
L18	345	16 not 17	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:12
L19	717453	coil\$1 or winding\$1 or solenoid\$3	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:12

## EAST Search History

L20	300	18 and 19	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:13
L21	20790	magnetoresist\$5 or magneto adj2 resist\$5	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:14
L22	83	20 and 21	US-PGPUB; USPAT	OR	OFF	2006/06/22 14:14